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Nota di contenuto	Fundamental Laws of Gearing -- On the Key Mistake in Generating Envelopes to a Family of Curves and Surfaces: A Special Case of Kinematics of Enveloping – Rolling Motion -- Meshing limit line of Archimedes worm drive -- Sinusoidal Gears and a New Method of Their Cutting -- Design of technological systems for gear finishing -- Generalized Unified Model for Synthesis of Links of Parallel-Axes Gear Systems -- Gear cutting with disc-shaped milling cutters -- Additive Technologies and Gradient Materials for Plastic Gear Production -- Quality Characteristics of Gearing -- Multi-parameter gear drives and gear variators (CVTs) -- Calculation of Gear Trains for Transmission Systems of Mobile Vehicles -- Analysis of Structures of Automatic Split-Power Gear Transmissions (CVTs) -- Kinematics, statics and

dynamics of complex and coupled cylindrical planetary gears -- Carefully, Scrupulously, Responsibly (in memoriam of Professor Dmitriy Babichev) -- Appendices.

Sommario/riassunto

This book was written by a team of leading gear experts from across the globe, including contributions from USA, Germany, Poland, China, Russia, Ukraine, and Belarus. It provides readers with the latest accomplishments in the gear theory and gear cutting tool design. Specialists can apply competencies gained from this book to quality control in gear manufacture, as well as to the conditions of their production. The book begins with a detailed discussion of the kinematics and geometry of geometrically-accurate gears and gear systems. This is followed by an analysis of state-of-the-art gear manufacturing methods with focus on gear finishing operations. Novel designs of gear transmission systems as well as gear theory and gear cutting tool design are also covered. .